

A New Genus of Bees from California (Hymen.).

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On April 18, 1923, Mr. E. Bethel was examining some flowers of *Calochartus mazzeanus* Leicht on Montgomery Creek, California, and noticed upon them a curious black bee. Although he had no apparatus for collecting insects, he managed to preserve the bee, which reached me rather squashed and broken; but still available for study. Mr. Bethel remarked: "This bee persisted in staying on the Mariposa lily as if he wished to be recorded," and so sent it on. It is presumably an oligotropic visitor of *Calochartus*, and an examination of the mouth-parts indicates that it eats the pollen.

Much to my surprise, this persistent bee turns out to represent a distinct new genus of the subfamily Dufoureae (Dufoureae of Robertson). The following diagnosis, while incomplete for the reasons mentioned, will make recognition easy. I am glad to name the genus after Mr. Bethel, whose contributions to our knowledge of western botany and zoology have been numerous and varied.

Betheliella new genus.

Male, Robust, intense black, with short broad abdomen, the general aspect suggesting *Macropis*.

Head very broad, eyes strongly diverging below; face without light markings; ocelli rather large, in a curved line; scape ordinary; clypeus transverse, very short, like a transverse band; labrum transverse, somewhat longer than clypeus, broadly rounded, not transversely striate, and without basal process, its apex with long hairs; mandibles long and strongly curved, with a well-formed inner tooth near apex; no distinct malar space; cheeks somewhat flattened behind eyes; maxillary palpi long, six-jointed, last joint extending beyond blade, joints measuring in microns (1.) 192, (2.) 176, (3.) 112, (4.) 96, (5.) 80, (6.) 112; broad hyaline intervals between the main (dark brown) portions; basal joint much thicker than second, and having a number of outstanding stiff bristles; last joint slender, with some small bristles at end; maxillary blade broad, the outer (convex) part very thin and pale, the inner (brown) part with a row of hyaline dots; four stiff bristles at apex; tongue only about 880 μ . long, elongate dagger-shaped; paraglossae reaching a little beyond middle of tongue, strap-shaped, with broad-

ened truncate hairy apex; labial palpi 656 mu. long, the joints measuring, (1.) 271, (2.) 192, (3.) 80, (4.) 112.

Mesothorax and scutellum finely punctured, the scutellum with a very shallow median furrow; metathorax distinctly truncate in middle, the area minutely rugulose, microscopically longitudinally striate basally; tegulae ordinary; anterior wings with well developed lanceolate stigma; marginal cell elongate-lanceolate, ending in a point on costa; basal nervure little bent, its lower end a little apicad of the oblique nervulus; two elongate cubital cells, about equally long, lower side of first with a conspicuous double curve; first recurrent nervure curved, meeting transverse cubital; second cubital cell narrowed more than half above, the second recurrent joining it at a right angle, a little before the beginning of its last third; legs robust, with very stout femora; hind tibiae broadened apically, on the inner side apically with a large flattened lamina, bearing the simple spurs below, and having a large tuft of black hair; hind femora with no tooth beneath; hind basitarsi long, not especially thickened or remarkable; hind claws bidentate at end.

Abdomen broad, the segments swollen at sides before the apical depression; fourth segment beneath with a pair of large shining bosses.

Betheliella calocharti new species.

♂.—Length about 8 mm., anterior wing 7; intense black throughout; pubescence black, long and stiff on face, long and erect on vertex, long on anterior part of mesothorax, on pleura and metathorax and sides of apical part of abdomen; front and clypeus dull; metathorax and scutellum shining, very finely punctured; tegulae black; wings dilute fuliginous, nervures and stigma piceous.

The nearest relative of this genus is perhaps Viereck's *Cryptohalictoides* from Nevada, but although the latter resembles *Betheliella* in the position of the first recurrent nervure, the second recurrent and other features are quite different, according to the published figures. The head and legs are also quite different.

In spite of the superficial resemblance, there is no real affinity with *Macropis*. In *Macropis ciliata* the maxillary blade has long hairs (up to 176 mu.) on apical part, while *Betheliella* has only very short ones, and these not dense. In *M. ciliata* the labial palpi are very stout, the joints measuring about (1.) 176, (2.) 112, (3.) 88, (4.) 112 mu long; the maxillary palpi

with short and very stout first joint; and these palpi do not have the long hyaline intervals between the dark joints. In *Betheliella* the bases of the joints are not abruptly narrower than the apices of the ones before, as is the case in *M. ciliata*. *Panurgus calcaratus* and *P. banksianus* differ by the long tapering maxillary blade, and many other characters. *Rhopitoides canus* is more similar in the mouth parts, but has maxillary palpi extending far beyond the blade, as is also true of *Halictoides campanula*, *H. dentiventris* and *Dufourca vulgaris*. *Hesperapis rhodocrata* has the maxillary blade all dark brown, and maxillary palpi not reaching its end; the first joint of maxillary palpi is short and stout. *Callandrena pectidis* has the stout joints of maxillary palpi broadened at end (except of course the last), and the first joint of labial palpi is longer than the next two united. Various other comparisons gave similarly discordant results, leaving *Betheliella* as a rather isolated type, presumably confined to the Californian region.

The type is in my collection, and will eventually go to U. S. National Museum.

The North American Species of the Genus *Hoplogaster* (Diptera : Anthomyiidae).

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The genus *Hoplogaster* Rondani is doubtfully distinct from *Coenosia* Meigen, being separable only by the smaller lower calyptra, which does not protrude much beyond the upper one in the males and is much more slender and shorter in the females than in those of *Coenosia*. There is usually also an additional bristle, or weak setula, on the hind tibia at or beyond middle on its posterodorsal surface, which is absent in most species of *Coenosia*.

I present a key for the identification of the North American species known to me but base it on males alone, as that sex only is represented in some of the species I have.

Key to Species (Males).

1. Legs black, bases of tibiae narrowly reddish,
californiensis Malloch
- Legs yellow, tarsi and rarely the femora partly darkened. . . 2